

SCHOTTKY BARRIER DIODE AND METHOD OF
MAKING THE SAME

Abstract of the Invention

5 A power Schottky rectifier device having pluralities of trenches are disclosed. The Schottky barrier rectifier device includes field oxide region having p-doped region formed thereunder to avoid premature of breakdown voltage and having a plurality of trenches formed in between field oxide regions to increase the anode area thereto increase forward current capacity or to shrinkage the planar area for driving the same
10 current capacity. Furthermore, the trenches have rounded corners to alleviate current leakage and LOCOS region in the active region to relief stress during the bonding process. The processes for power Schottky barrier rectifier device including termination region formation need only three masks and thus can gain the benefits of cost down.